

Week 10

AV Standups and Strategies

Dr Arsanjani

politiFact

Nytimes

label	statement	topics	person	job	location	affiliation
barely-true	We have less Americans working now than in the 70s.	economy,jobs	vicky-hartzler	U.S. Repres	Missouri	republican
pants-fire	When Obama was sworn into office, he DID NOT use the Holy Bible, but inste	obama-birth-certificate,chain-email				none
FALSE	Says Having organizations parading as being social welfare organizations and	campaign-finance,congre	earl-blumenauer	U.S. repres	Oregon	democrat
half-true	Says nearly half of Oregons children are poor.	poverty	jim-francesconi	Member of	Oregon	none
half-true	On attacks by Republicans that various programs in the economic stimulus pla	economy,stimulus	barack-obama	President	Illinois	democrat
FALSE	Says when armed civilians stop mass shootings with guns, an average of 2.5 p	guns	jim-rubens	Small busin	New Hamp	republican
TRUE	Says Tennessee is providing millions of dollars to virtual school company for r	education,state-budget	andy-berke	Lawyer and	Tennessee	democrat
FALSE	The health care reform plan would set limits similar to the socialized system	health-care	club-growth			none
TRUE	Says Donald Trump started his career back in 1973 being sued by the Justice D	candidates-biography,div	hillary-clinton	Presidential	New York	democrat
half-true	Bill White has a long history of trying to limit or even disenfranchise military v	military	republican-party-texas		Texas	republican
half-true	John McCains chief economic adviser during the 08 race estimated that Trum	economy	tim-kaine	U.S. Senato	Virginia	democrat
FALSE	Says 21,000 Wisconsin residents got jobs in 2011, but 18,000 of them were in	job-accomplishments,job	kathleen-vinehout			democrat
half-true	State revenue projections have missed the mark month after month.	state-budget	steve-henson	State Senat	Georgia	democrat
TRUE	The median income of a middle class family went down \$2,100 from 2001 to	income,new-hampshire-	joe-biden	U.S. senato	Delaware	democrat
barely-true	Every citizen is entitled to the freedom of speech, but no one should have the	gays-and-lesbians	david-dewhurst	Lieutenant	Texas	republican
half-true	Rick Perry has advocated abandoning Social Security, scuttling Medicaid and e	medicaid,social-security,	margaret-carlson	Columnist	District of	none
half-true	Two thirds to three quarters of people without [health] insurance in Rhode Isl	health-care,poverty,publ	elizabeth-roberts	Lieutenant	Rhode Isla	democrat
mostly-true	Congress has spent 66 of the first 100 days of this term in recess.	congress	john-barrow	Congressma	Georgia	democrat
barely-true	Mark Sharpe has lowered property taxes by 17 percent.	candidates-biography,tax	mark-sharpe	Hillsboroug	Florida	republican
pants-fire	Says Iowa Gov. Terry Branstad chartered a plane to remove 124 young illegal	immigration	chain-email			none
half-true	If you dont buy cigarettes at your local supermarket, your grocery bill wont go	taxes	philadelphia-daily-news			none
pants-fire	Says President Barack Obama has said that everybody should hate the police.	civil-rights,crime,crimina	rudy-giuliani	Attorney	New York	republican
TRUE	Georgia has had 1 more bank failures than any other state. 1	bankruptcy	lynn-westmoreland			republican
pants-fire	Bank of America could create 878,300 jobs with benefits if they spent their 20	financial-regulation,jobs,	facebook-posts	Social media	posting	none
half-true	Thom Tillis cut almost \$500 million from education.	children,congress,economi	emilys-list			organization
barely-true	If people work and make more money, they lose more in benefits than they w	poverty,welfare	marco-rubio	U.S. Senato	Florida	republican
mostly-true	We are poised to get rid of over 1,000 more regulations in 2012.	government-regulation,r	rick-scott	Governor	Florida	republican
pants-fire	A flight from Atlanta to Houston was canceled due to a terrorist dry run.	crime,terrorism	facebook-posts	Social media	posting	none

barely true	FALSE	half true	mostly true	pants on	context (venue / location)
1	0	1	0	0	an interview with ABC17 News
11	43	8	5	105	
0	1	1	1	0	a U.S. Ways and Means hearing
0	1	1	1	0	an opinion article
70	71	160	163	9	interview with CBS News
1	1	0	1	0	in an interview at gun shop in Hudson, N.H.
0	0	0	0	0	a letter to state Senate education committee chairwoman
4	5	4	2	0	a TV ad
40	29	69	76	7	the first presidential debate
3	1	1	3	1	an e-mail
8	3	15	15	0	a speech at the Democratic National Convention in Philadelphia
1	1	1	1	0	remarks
0	0	1	0	0	a press release
11	10	21	16	4	speaking at New Hampshire,Â Plymouth State University
8	8	10	5	5	a press release
0	0	1	0	0	a politics column.
1	0	2	0	0	a panel discussion on "A Lively Experiment"
0	0	1	1	0	a letter
1	0	0	0	0	a campaign mailer
11	43	8	5	105	a chain email
0	0	1	0	0	In an editorial
9	11	10	7	3	an interview on Fox News
1	1	3	0	0	a meeting
14	18	15	11	36	a Facebook post
1	0	3	2	0	a television ad
22	24	22	25	5	his book, "American Dreams"

Amalgamation

- Liar liar 6
- Kaggle Fake news 2
- ?? Scraping

Factors vs features

- Factors = {features | operations}
- Dataset → features that are highest importance
- Group features into things that cohesively describe a subset of the domain of study
- Domain = content moderation, subdomain = toxicity detection, factors of toxicity = { inapp words, semantic hatespeech } → **inapp words ground truth** {features | operations }, **semantic hatespeech** {features | operation = map words to embedding, use cosine sim to detect closeness to known hatespeech in the embedding space}

NodeRank	Political affiliation	Sentiment Analysis	Topics	Post/Social media activities
Spam	Visual based	Sensationalism	Writing Style	Reliable sources
Context Veracity	Verifiable Authenticity	Misleading intentions	Confirmation Bias	Psychological
Content Statistics	Social credibility	Frequency heuristic	Credibility and Reliability	Stance Detection
Source Reputation	Echo Chamber	Location / Geography	Education	Biases
News Coverage	Malicious Account	Naive Realism	Network-based	Corpus Structure
Political bias	Event Coverage	Title vs Body	ClickBait	Neural [Models of] Misinformation

Factor = political aff

- Factor = subfactors
- Political = democrat, republican, libertarian
- Democrat = liberal views on marriage, immigration, emphasis on controlling climate change, abortion is up to the person, etc.
- Republican = conservative fiscal policy, low taxes, anti-abortion, etc.

Intent

- Disinformation and misinformation
- Humor, drama, exgeration...

Sigma

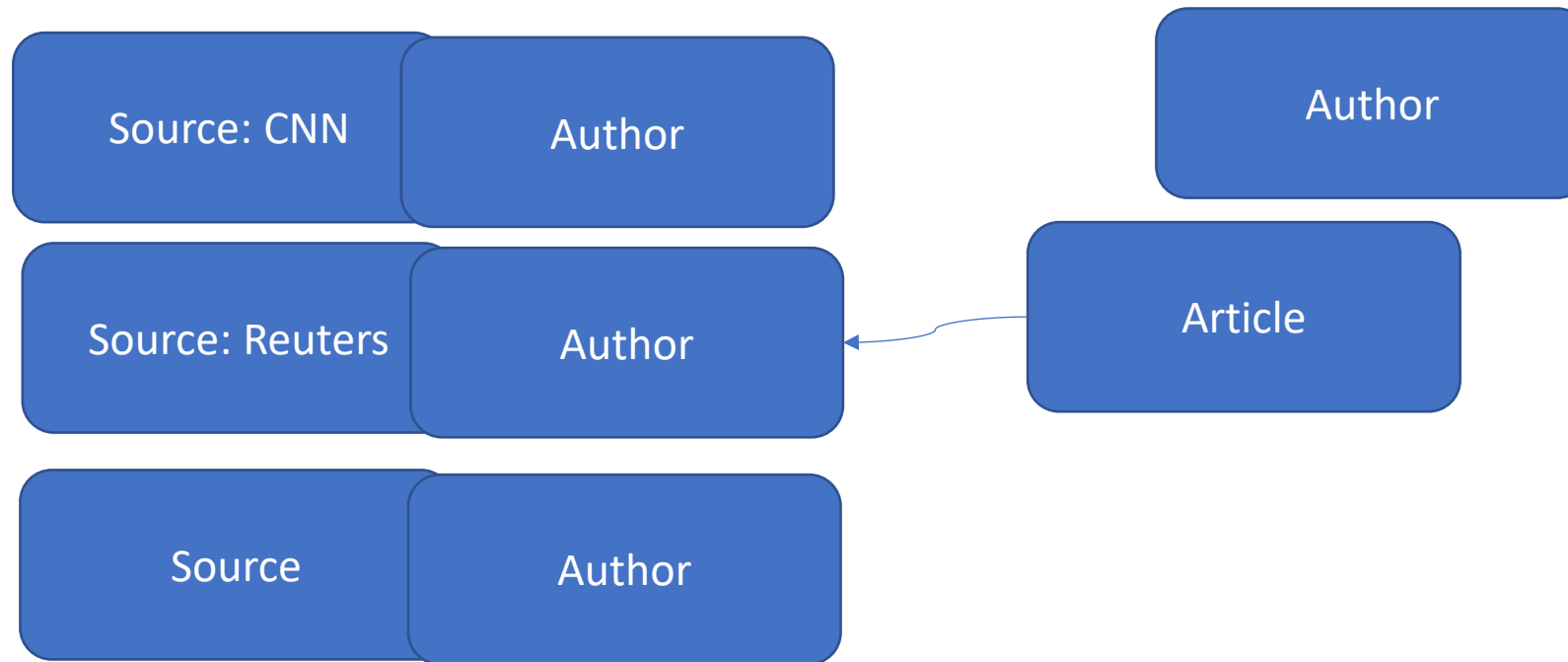
- Network based
 - Map text to a knowledge graph
 - Marriage
 - Climate change
 - taxes
 - Compare : subgraphs
 - Predict the tag, edge
- Gradually increasing evidence that this person is a<political aff>

Malicious Account [news] : are used to spread false news/sentiments on social media.

- <https://www.bbc.co.uk/bitesize/articles/zjhg47h>
- Fraud detection
- Is this account fake?
- Sentiment affects economic outcomes eg Netflix
 - Subscribers dip
- Twitter → affect on Netflix
 - 100K – [80K new accounts, geo, Oct 1, 2020, NER Netflix , sentiment, topics]
 - cluster and Analyze these accounts ; based on geography, history (when did they start) generally what was the top 20 topics they discussed?
 - 10K ++
- IP tracking
- “Contextification”: give more background to something for you to train models and make predictions ; add more context to make a decision (Bayesian priors)

Credibility /Reliability

Source [publication/ media] ,
author, content reliability

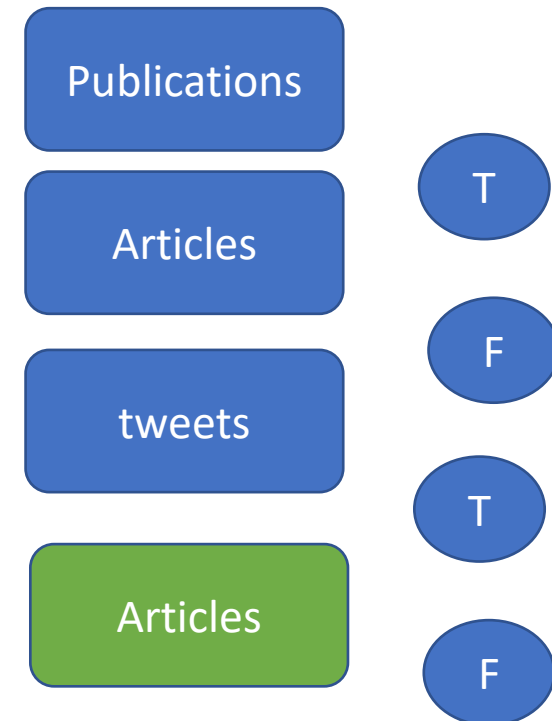


Context

- Author's publications and citations
 - Well cited?
 - Point to ground truth reliable sources
 - Other [reliable/ credible] authors cite this author?



Verification based on GT

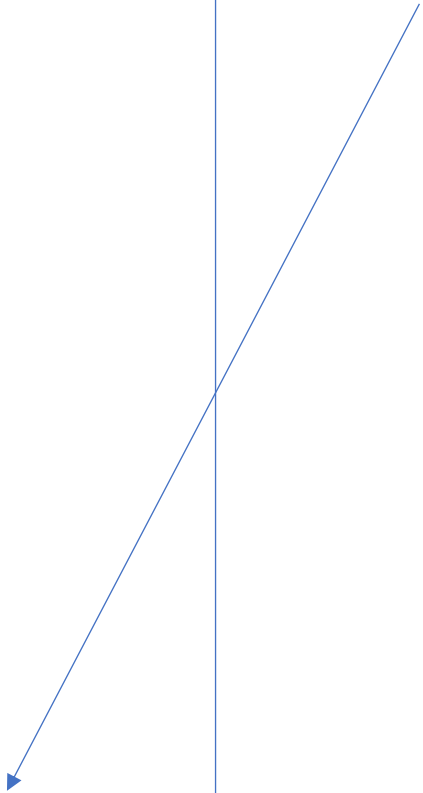
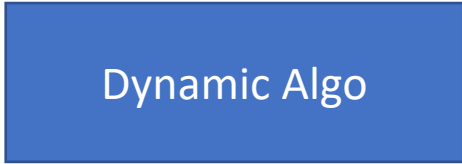
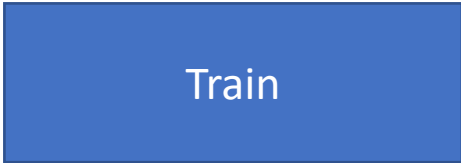
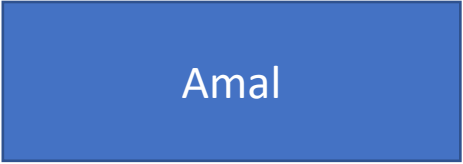


Context Veracity

- Article → context
 - Google search
 - Articles that confirm or deny the content of the original article
- Input = article
- Add Context [so a decision can be made]
- Evidence

Verifiable Authenticity

- Article – statement \rightarrow ... \rightarrow \rightarrow \rightarrow Source of truth / ground truth
-



Article

Authenticity = 0

Article

Authenticity = 1

Article

Content statistics

Kaggle fake news dataset

Article → content stats Authenticity = 0

Article

Article Authenticity = 1

Liar liar

Article → content stats Authenticity = 1

Article

Article Authenticity = 6

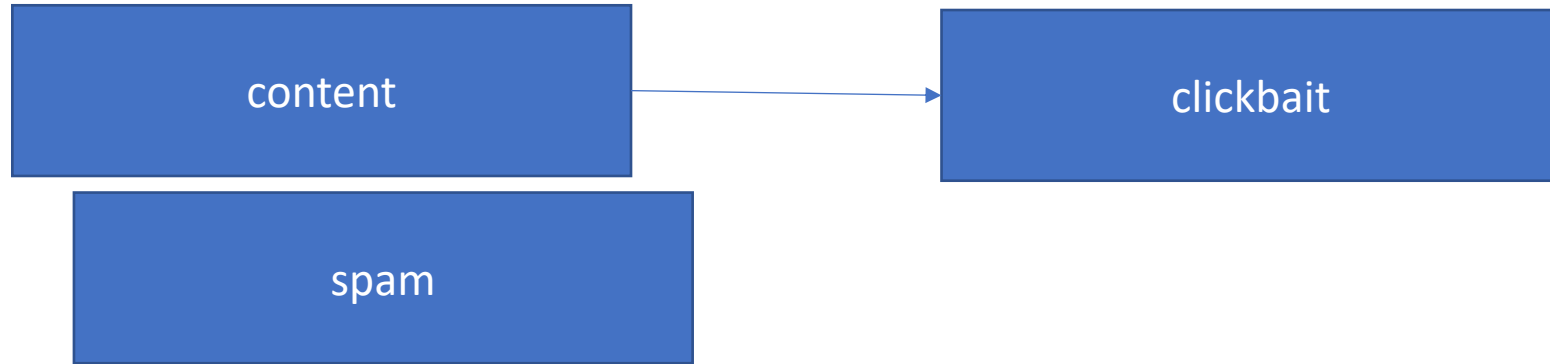
Scrape and label

1. Num of words
2. Num of {POS}
3. Misspellings
4. Colloquialisms
5. Hate speech
6. Averages
7. Sd
8. Length of sentences.
9. Length of words
10. Word complexity
11. [Morphology]

Echo Chamber

Spam / clickbait

Kaggle spam dataset



BERT!! [Multi-class Classification]

LL, KFN, etc

[political] Stance Detection

Define [political] stances:

Marriage, climate, taxes, guns, social, immigration, abortion

Summarize Topics + Sentiment

BERT Summarization

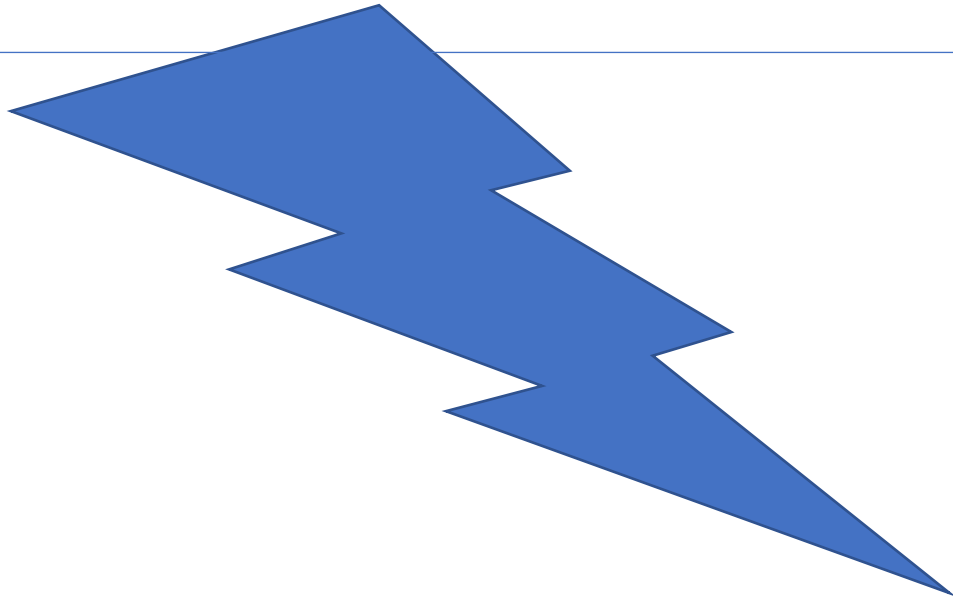
Sensationalism

<https://www.thewilkesbeacon.com/opinion/2019/04/16/why-sensationalized-news-stories-are-damaging-to-society/>

the use of exciting or shocking stories or language at the **expense of accuracy [100] ---- 70%**, in order to provoke public interest or excitement.

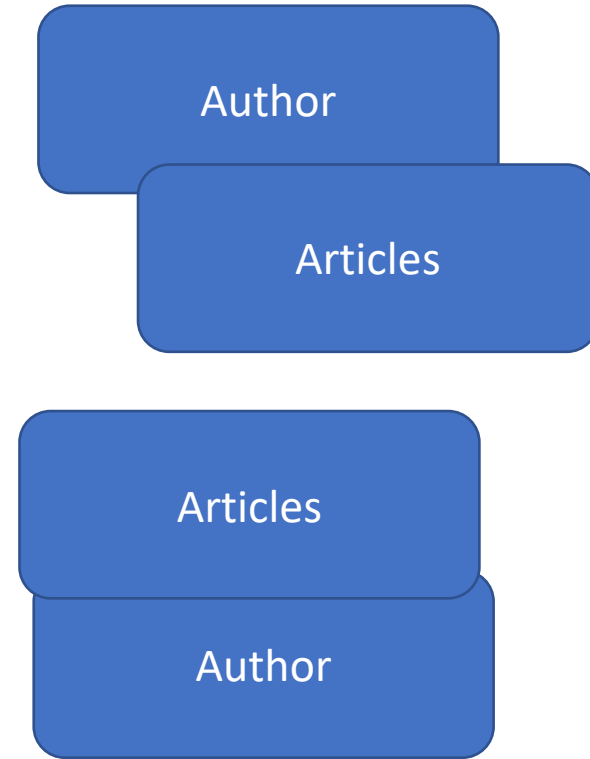
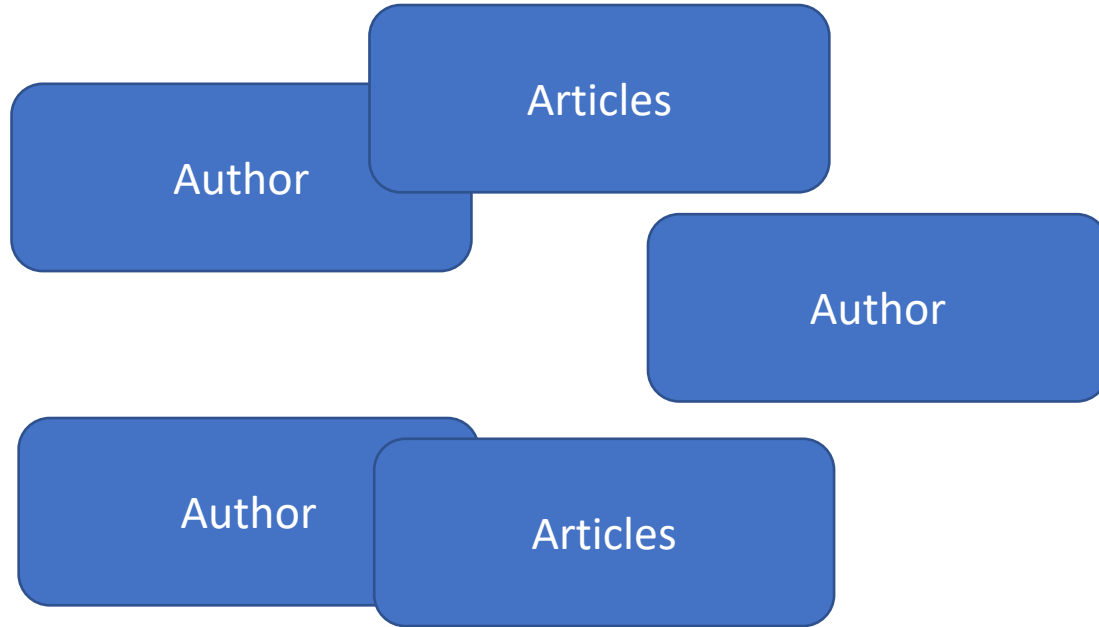
Content Statistics

Context Veracity



???

Social Cred



Mentions of the author and rank them [mentions]

Twitter

Articles

Co-authorship with a social cred author

Sentiment Analysis

Vader

BERT task sentiment analysis

?? Nltk

Psychological Utility

https://link.springer.com/chapter/10.1007/978-94-015-7629-1_5

utility theory

in decision making, any normative theory of utility that attempts to describe rational or optimal choice behavior.

Theory of how people make decisions

<http://www.trumptwitterarchive.com/>

Misleading Intentions

1. Read
2. Limit scope

<https://www.apa.org/research/action/speaking-of-psychology/fake-news>

Speaking of Psychology: Fake News and Why It Matters

<https://en.unesco.org/fightfakenews>

Journalism, 'Fake News' and Disinformation: A Handbook
for Journalism Education and Training



Event Coverage

LDA, NER, POS

$10 \times \text{green} + 12 \times \text{red}$

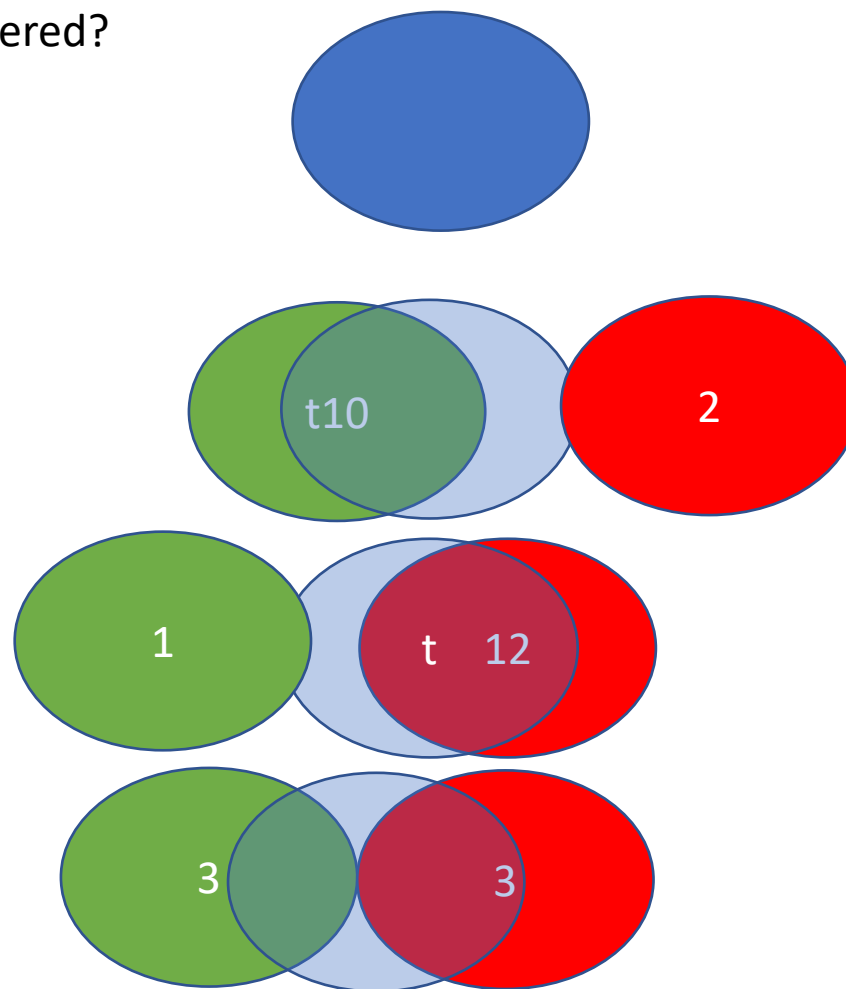
How completely/well is this event covered?

Event coverages and a score or label

Text \rightarrow LDA, NER, POS
MSNBC

Text \rightarrow LDA
Fox

Text \rightarrow LDA
BBC



writing style

<https://www.nytimes.com/2020/10/27/opinion/trump-obama-2020.html#commentsContainer>

Morphology, linguistics



Data: Article [+ Distillations (LDA, NER, POS)] → Tags

Stance Detection

Doc2vec()

HW

- Design strategy for your factor
- Data set research (2 datasets)
- Some bare minimum **prototype**
 - Ask questions Share some initial problems, results

Factors → Score [percentage]

Kaggle fake news dataset

Article → content stats Authenticity = 0

Article

Article Authenticity = 1

Liar liar

Article → content stats Authenticity = 1

Article

Article Authenticity = 6

Scrape and label

